## REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

By the foregoing amendment, claim 11 has been amended, and claim 12-14 canceled without prejudice or disclaimer for filing in a continuation application. Claims 1-10 were previously canceled. Thus, claims 11 and 15-20 are currently pending in the application and subject to examination.

In the Office Action mailed April 1, 2005, the Examiner rejected claims 11-14 and 19-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,117,689 to Summerfelt, in view of Noguchi et al. (U.S. Patent No. 6,258,459). Claims 15-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Summerfelt and Noguchi in view of Buskirk et al. ("Common and Unique Aspects of Perovskite Thin Film CVD Processes", provided in IDS), as well as, with regard to claim 16, official notice of certain allegedly "well known" facts outside the record. Claims 11-13 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,995,359 to Klee, in view of U.S. Patent No. 6,258,459 to Noguchi et al. The Applicants note that claim 11 has been amended and claims 12-14 have been canceled without prejudice or disclaimer. To the extent that the rejections remain applicable to the claims currently pending, the Applicants hereby traverse the rejections, as follows.

The Examiner contends that Summerfelt discloses "preparing an amorphous layer (SOI substrate; see column 11, lines 40-41), [and] forming a MgO layer (34, see column 11, lines 20-40) on the amorphous layer". The Applicants note that Summerfelt describes that the substrate may be a silicon-on-insulator (SOI), but does not appear to

disclose or suggest any further possibilities, including no disclosure or suggestion that the SOI substrate is an amorphous layer.

The Applicants note that SOI is usually formed by adhering two single crystal silicon wafers, at least one of which has an insulating overcoat layer, such as a thermally grown oxide layer, and by reducing the thickness of one of the single crystal silicon wafers to form an active layer. Thus, the manufacturing cost of an SOI wafer becomes high. An SOI substrate may be used to form dielectric-isolated active regions by oxidizing or removing unnecessary portions of the active layer. The SOI substrate is thus adopted for producing high performance devices. In such cases, the active layer should be formed of a single crystal layer. The Applicants note that it would have no meaning to make the active layer amorphous in an SOI substrate.

The Applicants submit that, in Summerfelt, the listed materials for interlayer dielectrics 34 and 38 include MgO, but Summerfield does not disclose or suggest at least the interlayer dielectric being formed on an amorphous layer, as claimed in claim 11, as amended. Further, Noguchi discloses a ferroelectric capacitor constituted of respective layers having (001) orientation, but does not disclose or suggest at least the forming, as an underlying layer of an $ReO_3$ layer, of an MgO layer of (001) orientation on an amorphous layer, as claimed in claim 11, as amended.

For the present invention, as claimed in claim 11, the Applicants noticed the self-orienting phenomenon of an MgO layer and that, on an amorphous layer, an MgO layer can be easily oriented in the (001) orientation. Then, an $ReO_3$ layer strongly oriented in the (001) direction can be formed on the (001) MgO layer, and an oxide ferroelectric layer having perovskite structure, strongly oriented in the (001) direction, can be formed

on the $ReO_3$ layer. At least this combination of features as claimed in claim 11 was not disclosed or suggested in the cited references.

For at least these reasons, the Applicants submit that claim 11, as amended, is allowable over the cited prior art. As claim 11, is allowable, the Applicants submit that claims 15-20, which depend from allowable claim 11, are likewise allowable over the cited prior art.

With regard to each of the rejections under §103 in the Office Action, it is also respectfully submitted that the Examiner has not yet set forth a *prima facie* case of obviousness. The PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 U.S.P.Q.2nd 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002).

In the Office Action, the Examiner merely states that combining the references would be obvious to provide generic advantages of improving performance, simplifying

formation, or reducing costs. See, e.g., Office Action at pages 2, 3, 4, and 5. This is an insufficient showing of motivation to specifically combine the cited references.

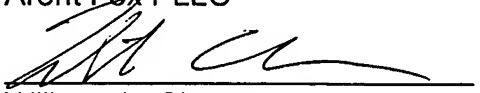
For all of the above reasons, it is respectfully submitted that the claims now pending patentability distinguish the present invention from the cited references. Accordingly, reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited.

Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 01-2300. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this communication to Deposit Account No. 01-2300, referencing attorney docket No. 107317-00064.

Respectfully submitted,

Arent Fox PLLC



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